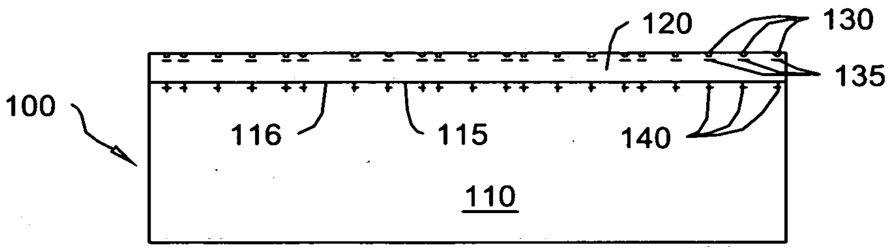

Fig.1

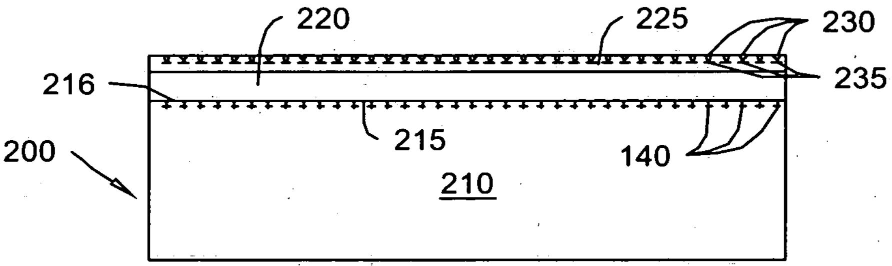

Fig.2

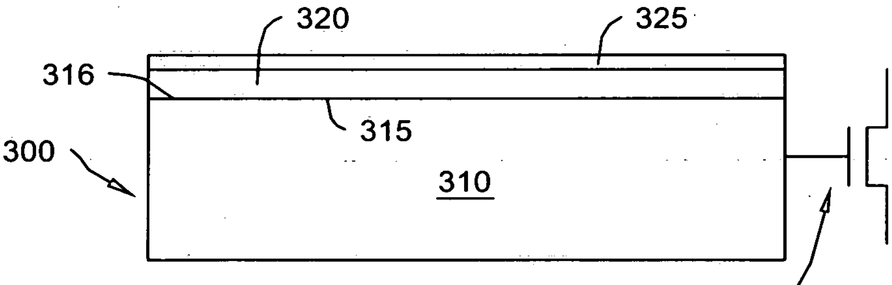

Fig.3

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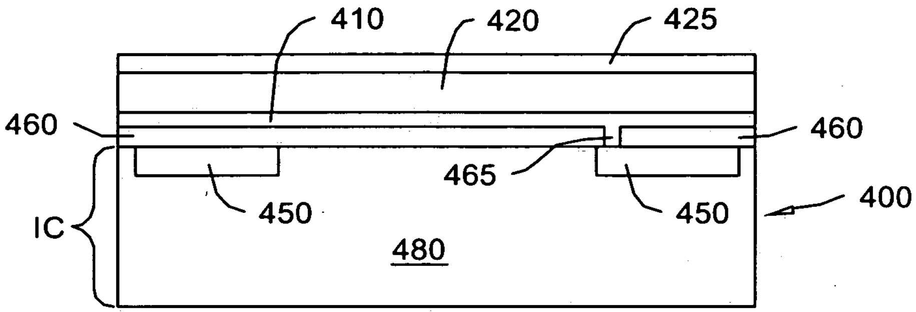

Fig.4

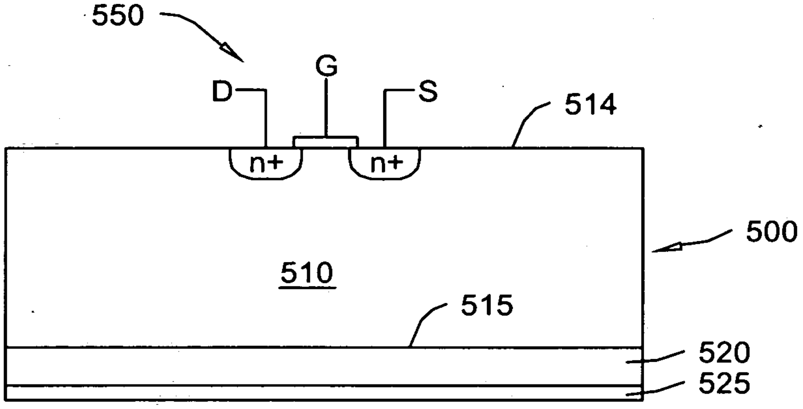

Fig.5

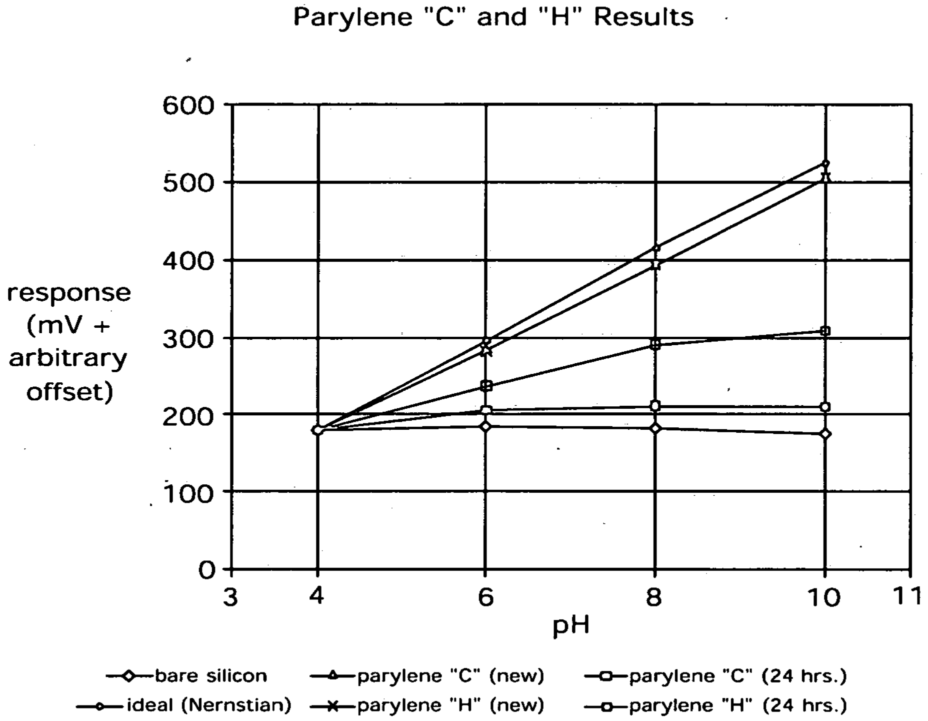
Parylene "C" and "H" Results
response (mV + arbitrary offset)
600
500
400
300
200
100
0
3
4
6
8
10
11
pH
bare silicon
parylene "C" (new)
parylene "C" (24 hrs.)
ideal (Nernstian)
parylene "H" (new)
parylene "H" (24 hrs.)

Fig.6

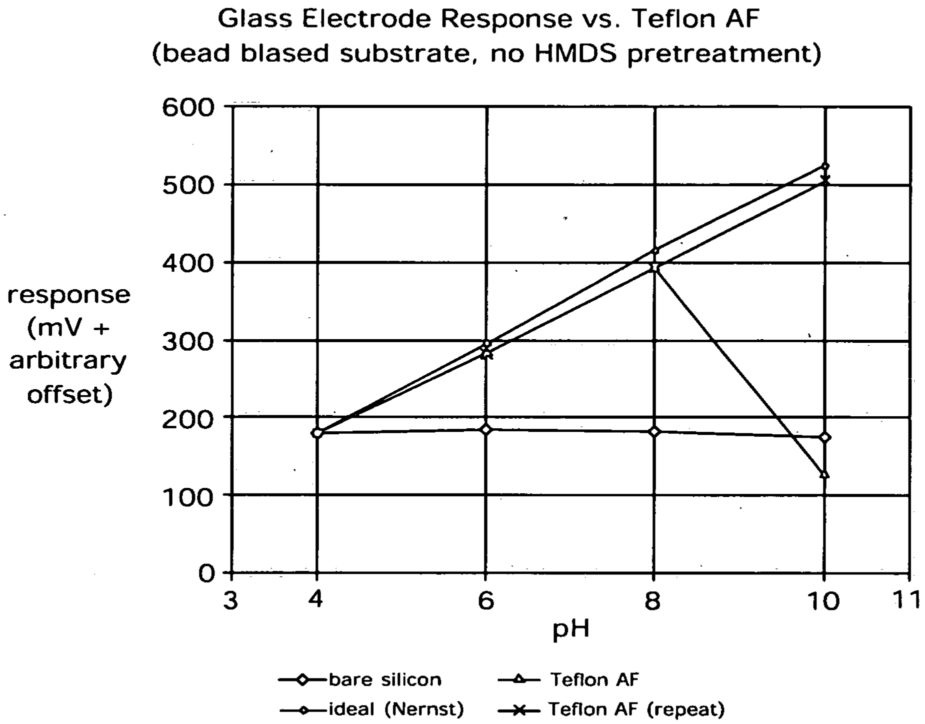
Glass Electrode Response vs. Teflon AF
(bead blased substrate, no HMDS pretreatment)
600
500
400
300
200
100
0
response (mV + arbitrary offset)
3
4
6
8
10
11
pH
—◇—bare silicon
—△— Teflon AF
—◆—ideal (Nernst)
—✕— Teflon AF (repeat)

Fig.7

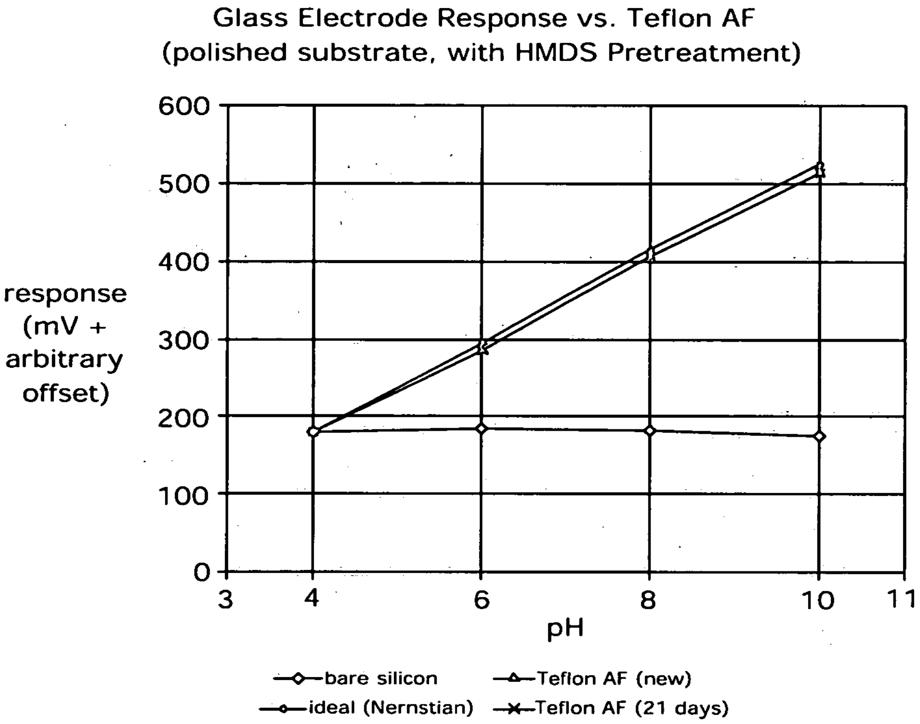
Glass Electrode Response vs. Teflon AF
(polished substrate, with HMDS Pretreatment)
response (mV + arbitrary offset)
600
500
400
300
200
100
0
3
4
6
8
10
11
pH
bare silicon
Teflon AF (new)
ideal (Nernstian)
Teflon AF (21 days)

Fig.8

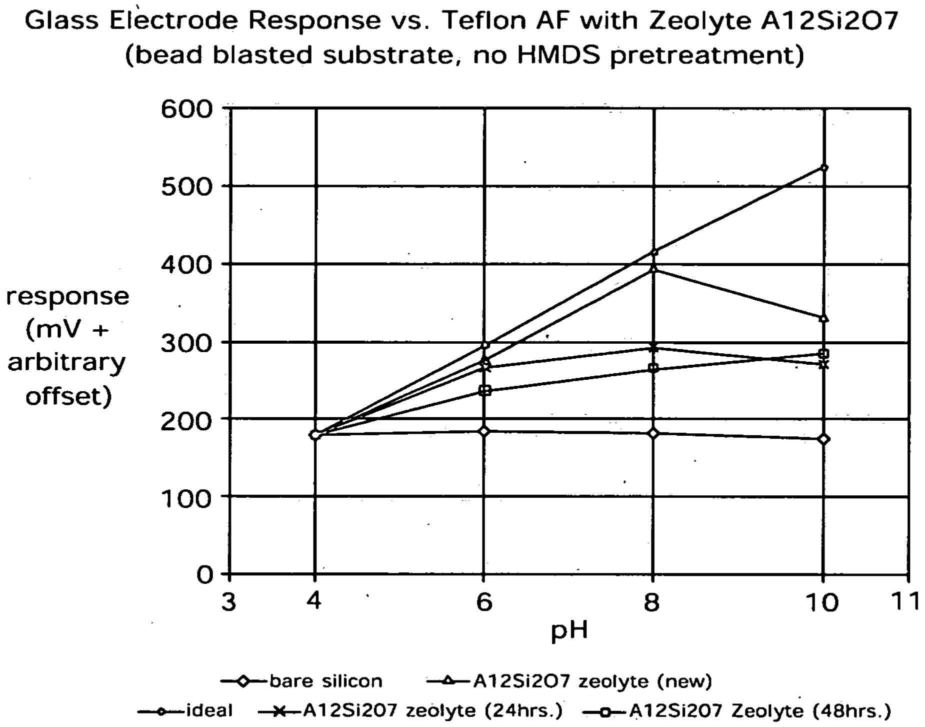
Glass Electrode Response vs. Teflon AF with Zeolyte A12Si2O7
(bead blasted substrate, no HMDS pretreatment)
response (mV + arbitrary offset)
600
500
400
300
200
100
0
3
4
6
8
10
11
pH
bare silicon
A12Si2O7 zeolyte (new)
ideal
A12Si207 zeolyte (24hrs.)
A12Si207 Zeolyte (48hrs.)

Fig.9

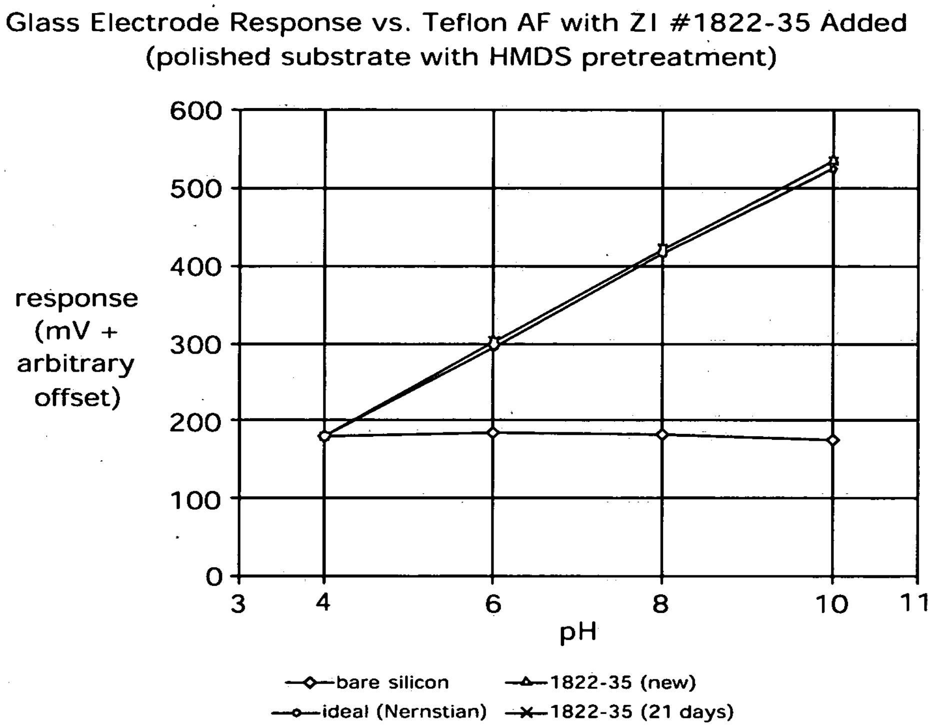
Glass Electrode Response vs. Teflon AF with ZI #1822-35 Added
(polished substrate with HMDS pretreatment)
response (mV + arbitrary offset)
600
500
400
300
200
100
0
3
4
6
8
10
11
pH
bare silicon
1822-35 (new)
ideal (Nernstian)
1822-35 (21 days)

Fig.10

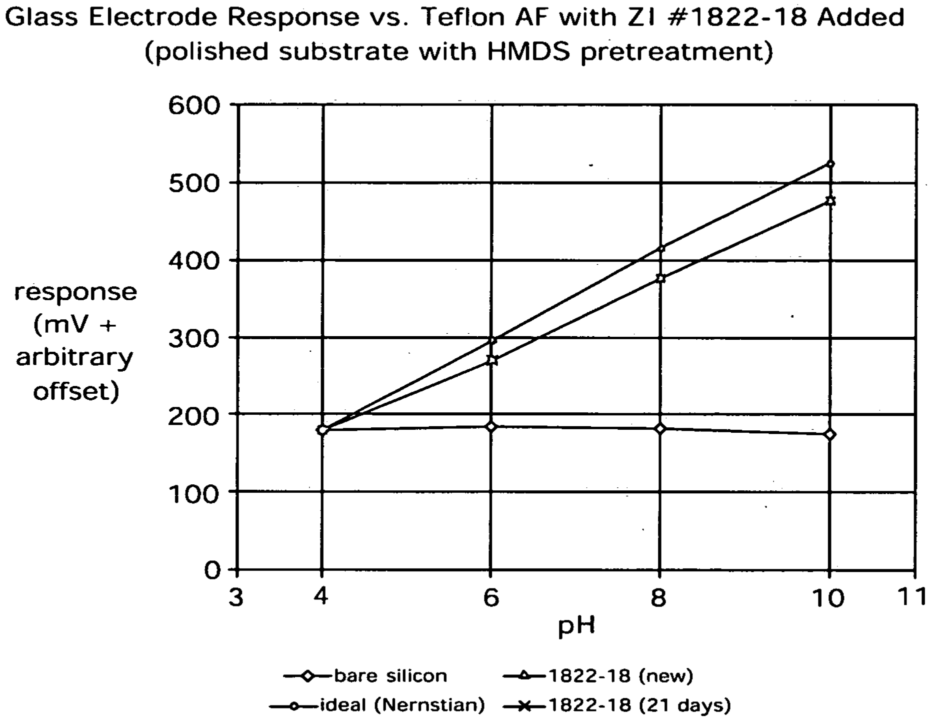
Glass Electrode Response vs. Teflon AF with ZI #1822-18 Added
(polished substrate with HMDS pretreatment)
600
500
400
300
200
100
0
response (mV + arbitrary offset)
3
4
6
8
10
11
pH
bare silicon
1822-18 (new)
ideal (Nernstian)
1822-18 (21 days)

Fig.11

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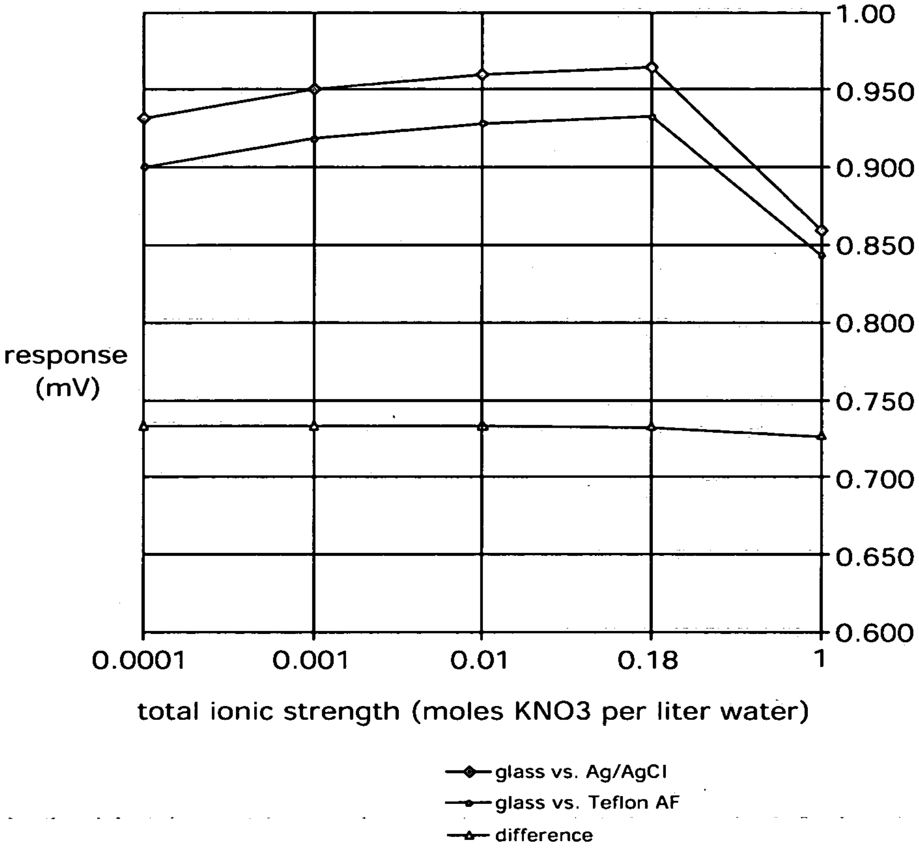

Fig.12